

Case 3380***Columba roseogrisea* Sundevall, 1857 (currently *Streptopelia roseogrisea*; Aves, COLUMBIDAE): proposed conservation**

Thomas M. Donegan

ProAves Foundation, 33 Blenheim Road, Caversham, Reading, U.K.
(e-mail: thomasdonegan@yahoo.co.uk)

Abstract. The purpose of this application, under Article 23.9 of the Code, is to conserve the name *Streptopelia roseogrisea* (Sundevall, 1857) for the African collared dove. The name is threatened by its senior subjective synonym *Streptopelia risoria* (Linnaeus, 1758), which is in use for the domestic form of *S. roseogrisea*. It is proposed to conserve the name *Streptopelia roseogrisea* (Sundevall, 1857) by ruling that the name is not invalid because it is pre-dated by a name based on a domestic form.

Keywords. Nomenclature; taxonomy; *Streptopelia roseogrisea*; *Streptopelia risoria*; *Streptopelia decaocto*; ringed dove; ringed turtle-dove; barbary dove; African collared dove; collared dove.

1. *Columba risoria* (ringed dove, ringed turtle-dove or barbary dove) was described by Linnaeus (1758, p. 165) and later transferred to the genus *Streptopelia* by Bonaparte (1855, p. 17). Ringed doves are kept in captivity in many parts of the world, being used frequently in biological research (e.g. Zenone et al., 1979; Walker et al., 1983; Janik & Buntin, 1985; Cheng, 1986; Cate et al., 1993; Georgiou et al., 1995) or as pets by bird fanciers. Feral populations of *S. risoria* have been found in the United States (Robbins et al., 1983, p. 168; National Geographic, 1999, pp. 236–237), the Virgin Islands (Raffaele et al., 1998, p. 299), the Canary Islands (Svensson et al., 1999, p. 390), the Balearic Islands (Snow & Perrins, 1998, pp. 852–853), the U.K. (British Ornithologists' Union, 2006), elsewhere in Europe (Peterson et al., 1983, p. 131) and Colombia, South America (Donegan & Huertas, 2002). Ringed doves are considered 'introduced' in North America (American Ornithological Union, 2000; Banks et al., 2006), 'hypothetical' (pending confirmation of a sustainable population) for South America (Remsen et al., 2006), possibly introduced in Colombia (Salaman et al., 2007) and 'Category E' in the U.K. (British Ornithologists' Union, 2006).

2. *Columba roseogrisea* (African collared dove) was described by Sundevall (1857, p. 54) and is a wild species found in south-west Mauritania and Senegal, Gambia east through Mali, Niger, Chad and Sudan to west Ethiopia and coastal Eritrea and Somalia and Arabia to South Yemen. *S. roseogrisea* is the name given to wild populations in all literature of which I am aware (e.g. Sibley & Monroe, 1990; Dowsett & Forbes-Watson, 1993; Baptista et al., 1997; Snow & Perrins, 1998, pp. 852–853; Svensson et al., 1999, p. 382; Gibbs et al., 2001; Johnson et al., 2001; Dickinson, 2003, p. 161; *BirdLife International*, 2005). Two subspecies are currently

recognised' (Dickinson, 2003): the nominal subspecies and *S. r. arabica* (Neumann, 1904).

3. Due to their morphological similarities *S. risoria* is widely considered to be a domestic descendant of *S. roseogrisea* (Bonaparte, 1855; Goodwin, 1983; Sibley & Monroe, 1990; Snow & Perrins, 1998, p. 852; Banks et al., 2003). Some domestic and feral *S. risoria* individuals can be differentiated from wild *S. roseogrisea* populations due to leucisms (lighter feathers) which are more common in domestic populations and, possibly, average larger tail size (Goodwin, 1983; Snow & Perrins, 1998) and call (Dowsett & Forbes-Watson, 1993). However, some domestic and feral individuals of '*S. risoria*' in Colombia (pers. obs.), Tenerife (pers. obs.) and Mallorca (Snow & Perrins, 1998) are essentially indistinguishable from wild ancestral *S. roseogrisea*. Wild and domestic birds interbreed in captivity and *S. roseogrisea* is a tame species, possibly leading to multiple insertion of wild stock to domestic populations over time. Captive birds resembling wild populations interbreed freely with leucistic individuals in captivity. *S. risoria* and *S. roseogrisea* are therefore conspecific under most if not all concepts in modern use and as such have been considered synonymous by various authors (American Ornithologists' Union, 1998; Svensson et al., 1999; BirdLife International, 2005; Remsen et al., 2006; Banks et al., 2006).

4. As was noted by Gentry et al. (BZN 53(1): 28–37, 1996) for mammals, most bird species with both domestic and wild populations have only one scientific name. Examples of bird species which include or sometimes include distinctive domestic forms but for which the same name is used include *Anas platyrhynchos* Linnaeus, 1758 (domestic duck/mallard), *Meleagris gallopavo* Linnaeus, 1758 (wild turkey/turkey), *Numida meleagris* (Linnaeus, 1758) (helmeted guinea-fowl), *Phasianus colchicus* Linnaeus, 1758 (common pheasant), *Coturnix coturnix* (Linnaeus, 1758) (common quail), *Melopsittacus undulatus* (Shaw, 1805) (budgerigar) and *Serinus canaria* (Linnaeus, 1758) (canary). Other bird species name-pairs *Columba domestica* Linnaeus, 1758 / *Columba livia* Gmelin in Linnaeus, 1789 (feral pigeon / rock pigeon) and *Gallus domesticus* (Linnaeus, 1758) / *Gallus gallus* (Linnaeus, 1758) (chicken / red junglefowl) may require Commission attention in the future but are not the subject of this application. In Opinion 2027 (Case 3010), the Commission conserved the usage of specific names for 15 Mammalia, one Lepidoptera and one Osteichthyes species based on wild species each of which was pre-dated by or contemporary with a name based on a domestic form (BZN 60: 81–84, 2003). The relevant case was controversial and generated much interest and many responses, all cited in Opinion 2027. I propose that a similar approach be adopted here for consistency and to promote stability and universality.

5. Considerable confusion is apparent in the ornithological literature as to the correct nomenclature for the ringed dove and African collared dove. The name *S. risoria* has been considered unusable by some (e.g. Peters, 1937, p. 92; Sibley & Monroe, 1990; Banks et al., 2006) but multiple examples of frequent recent usage nonetheless exist. Feral populations have been referred to in a number of ways, for example '*S. risoria*' in inverted commas (e.g. Snow & Perrins, 1998; *National Geographic*, 1999; British Ornithologists' Union, 2006), sometimes within a species account for *S. roseogrisea* (e.g. Snow & Perrins, 1998), '*S. roseogrisea* var. *risoria*' (Svensson et al., 1999) or simply as *S. risoria* (Zenone et al., 1979; Walker et al., 1983; Robbins et al., 1983; Janik & Buntin, 1985; Cheng, 1986; Cate et al., 1993; Georgiou

et al., 1995), sometimes with a note as to questions over the taxon's nomenclature (e.g. Donegan & Huertas, 2002; Remsen et al., 2006). Banks et al. (2006) recently changed the American Ornithologists' Union's official name from *S. risoria* to *S. roseogrisea* on the basis that Opinion 2027 enshrines a 'general principle' regarding the treatment of names for domestic and feral species. However, Opinion 2027 applies only to the species mentioned therein. Numerous references to the name *S. risoria* in the literature cited above and confusion caused through the proliferation of non-Code compliant systems for the nomenclature of domestic and feral forms (described further in Gentry et al., 1996, pp 28–37) are reasons behind this application.

6. The case of these two species is complicated somewhat by the apparent reference to individuals of other (currently) *Streptopelia* species in the description of *Columba risoria*. Linnaeus (1758) included only a brief, ambiguous text and referred to descriptions by Aldrovandi (1599, p. 510), Willughby (1678, p. 184, pl. 35), Ray (1713, p. 61) and Albin (1738, p. 42, pl. 45). These works include plates and descriptions of birds similar to leucistic, domestic ringed doves (Aldrovandi and Willughby plates; Aldrovandi, Willughby and Ray descriptions of the 'male'), African collared dove (possibly, Aldrovandi, Willughby and Ray descriptions of the 'female') and wild Eurasian collared dove *Streptopelia decaocto* (Frivaldszky, 1838, pp. 183–184, pl. 8) (Albin's plate and description and, possibly, Aldrovandi, Willughby and Ray descriptions of the 'female'). Probably as a result, Baptista et al. (1997) noted that *S. decaocto* and *S. risoria* could be synonyms. However, almost all other literature on the topic ignores Linnaeus's (1758) references to *S. decaocto* or wild *S. roseogrisea* material in the description of *S. risoria* and treats *S. risoria* as referring to domestic populations of the ringed dove, to which the majority of illustrations and descriptions referenced therein refer. In a separate paper, I intend to designate a neotype for *S. risoria* in order to stabilise its nomenclature further and note this issue herein only for completeness.

7. The confusion caused by the existence of the names *S. risoria* and *S. roseogrisea* is particularly an issue for the nomenclature of feral populations of this species, some individuals of which are indistinguishable from ancestral stock. Such birds have traditionally been assigned to *S. risoria* (references above) but recently have been called *S. roseogrisea* (Banks et al., 2006). If the Principle of Priority (Article 23.1 of the Code) were applied, the name *S. risoria* would take precedence, contrary to the position adopted for other species in Opinion 2027.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the name *roseogrisea* Sundevall, 1857, as published in the binomen *Columba roseogrisea*, is not invalid by virtue of being pre-dated by a name based on the domestic form *risoria* Linnaeus, 1758, as published in the binomen *Columba risoria*;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *risoria* Linnaeus, 1758, as published in the binomen *Columba risoria*;
 - (b) *roseogrisea* Sundevall, 1857, as published in the binomen *Columba roseogrisea*, with the endorsement that it is not invalid by virtue of being pre-dated by a name based on the domestic form *risoria* Linnaeus, 1758, as published in the binomen *Columba risoria*.

Acknowledgements

Thanks to Gina Douglas (*Linnean Society of London*) and University College London library staff for assisting me in locating historic literature. My wife Blanca Huertas obtained various other references and provided helpful comments on the manuscript. Various anonymous reviewers provided other comments on the manuscript.

References

- Albin, E. 1738. *A natural history of birds*, vol. 3. 96 pp., 101 plates. Published by the author, London.
- Aldrovandi, U. 1599. *Ornithologiae*, vol. 1, lib. XI, ch. 9, 862 pp. Published by the author, Bologna.
- American Ornithologists' Union. 2000. The A.O.U. Checklist of North American Birds. *Auk*, **117**: 847–858.
- Banks, R.C., Cicero, C., Dunn, J.L., Kratter, A.W., Rasmussen, P.C., Remsen, J.V. Jr., Rising, J.A. & Stotz, D.F. 2006. Forty-seventh supplement to the American Ornithologists' Union Check-list of North American Birds. *Auk*, **123**: 926–936.
- Baptista, L.F., Trail, P.W. & Horblit, H.M. 1997. Family Columbidae (pigeons and doves). Pp. 60–243 in del Hoyo, J. et al. (Eds.), *Handbook of the Birds of the World, vol. 4. Sandgrouse to cuckoos*. Lynx Editions, Barcelona.
- BirdLife International*. 2005. Species factsheet: *Streptopelia roseogrisea*. <http://www.birdlife.org> (accessed on 20.02.2006).
- Bonaparte, C.L.J.L. 1855. Coup d'oeil sur les Pigeons (quatrième partie). *Comptes rendus hebdomadaire des séances de l'Académie des Sciences*, **40**: 15–24.
- British Ornithologists' Union. 2006. *The British List*. Published online. www.bou.org.uk (accessed on 20.02.2006).
- Cate, C. ten, Lea, R.W., Ballintijn, M.R. & Sharp, P.J. 1993. Brood size affects behavior, inter-clutch interval LH levels and weight in Ring Dove (*Streptopelia risoria*) breeding pairs. *Hormones and Behavior*, **27**: 539–550.
- Cheng, M.F. 1986. Female cooing promotes ovarian development in Ring Doves (*Streptopelia risoria*). *Physiology and Behavior*, **37**: 371–374.
- Dickinson, E.C. (Ed.). 2003. *The Howard and Moore complete checklist of the birds of the World*. Revised and enlarged 3rd Edition. 1040 pp. Christopher Helm, London.
- Donegan, T.M. & Huertas, B.C. 2002. Registro de una pareja de la Tórtola de Collar *Streptopelia risoria* en el departamento de Norte de Santander, Colombia. *Boletín Sociedad Antioqueña de Ornitología*, **8**(24–25): 73–76.
- Dowsett, R.J. & Forbes-Watson, A.D. 1993. *Checklist of Birds of the Afrotropical and Malagasy Regions. Volume 1: Species List and Distribution*. 374 pp. Tauraco Press, Liège.
- Ferguson-Lees, J., Willis, I. & Sharrock, J.T.R. 1983. *The Shell Guide to the Birds of Britain and Ireland*. 336 pp. Michael Joseph, Penguin Group, London.
- Frivaldszky, I. 1838. Balkány vidéki természettudományi utazás. *Kaarpaataljai Magyar Tudományos Társaság. Evkönyvi*, **3**(3): 156–184.
- Gentry, A., Clutton-Brock, J. & Groves, C.P. 2004. The naming of wild animal species and their domestic derivatives. *Journal of Archaeological Science*, **31**: 645–651.
- Georgiou G.C., Sharp, P.J. & Lea, R.W. 1995. (14C) 2-Deoxyglucose uptake in the brain of the Ring Dove (*Streptopelia risoria*) II. Differential uptake at the onset of incubation. *Brain Research*, **700**: 137–141.
- Gibbs, D., Barnes, E. & Cox, J. 2001. *Pigeons and doves. A guide to the Pigeons and Doves of the World*. 615 pp. Yale University Press, New Haven, U.S.A. & London and A&C Black & Christopher Helm, London.
- Goodwin, D. 1983. *Pigeons and Doves of the World*, 3rd edition. 363 pp. Cornell University Press, Ithaca.
- Hegenveld, R. 1993. What to do about the North American invasion by the Collared Dove? *Journal of Field Ornithology*, **64**: 477–489.
- Heinzel, H., Fitter, R. & Parslow, J. 1972. *Birds of Britain and Europe with North America and the Middle East*. 366 pp. William Collins & Sons, London.

- Janik, D.S. & Buntin, J.D.** 1985. Behavioral and physiological effects of prolactin in incubating doves (*Streptopelia risoria*). *Journal of Endocrinology*, **105**: 201–210.
- Johnson, K.P.** 2001. Book review of Gibbs et al., 2001 (op. cit.). *Birding*, **2001**: 482–485.
- Johnson, K.P., Kort, S. de., Dinwoodey, K., Mateman, A.C., Cate, C. ten, Lessels, C.M. & Clayton, D.H.** 2001. A molecular phylogeny of the dove genera *Streptopelia* and *Columba*. *The Auk*, **118**(4): 874–887.
- Linnaeus, C.** 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.
- Linnaeus, C.** 1789. *Systema Naturae*, Ed. 13, vol. 1, pt. 2. 769 pp. Apud J.B. Delamollière, Lugduni.
- National Geographic.** 1999. *Field Guide to the Birds of North America*, 3rd edition. 480 pp. National Geographic, Washington D.C.
- Neumann, O.R.** 1904. Drei neue Formen aus Süd-Arabien. *Ornithologische Monatsberichte*, **12**: 29–31.
- Peters, J.L.** 1937. *Check-list of birds of the world*, vol. 3. 311 pp. Harvard University Press, Cambridge, Massachusetts.
- Peterson, R.T., Mountfort, G. & Hollom, P.A.D.** 1983. *A Field Guide to the Birds of Britain and Europe*. 4th Edition. 240 pp. Collins, London.
- Raffaele, H., Wiley, J., Garrido, O., Keith, A. & Raffaele, J.** 1998. *Birds of the West Indies*. 511 pp. Christopher Helm, London.
- Ray, J.** 1713. *J. Raii Synopsis methodica avium: opus posthumum*. 198 pp. Printed for W. Innys by the author. London.
- Remsen, J.V. Jr., Jaramillo, A., Nores, M., Pacheco, J.F., Robbins, M.B., Schulenberg, T.S., Stiles, F.G., da Silva, J.M.C., Stotz, D.F. & Zimmer, K.J.** 2006. A classification of the bird species of South America. American Ornithologists' Union. <http://www.museum.lsu.edu/~Remsen/SACCBaseline.html>. Version 18 December 2006. Hypothetical List and Proposal 182 by T. Donegan.
- Robbins, C.S., Bruun, B., Zim, H.Z. & Singer, A.** 1983. *A Guide to Field Identification: Birds of North America*. Revised Edition. 360 pp. Golden Press, New York, U.S.A.
- Salaman, P., Donegan, T. & Caro, D.** 2007. Listado de Avifauna Colombiana 2007. *Conservación Colombiana* Suplemento (Marzo 2007). 85 pp. Fundación ProAves, Bogotá, Colombia.
- Shaw, G.** 1805. *The naturalists' miscellany*, vol. XVI. 1064 pl. London.
- Sibley, C.G. & Monroe, B.L. Jr.** 1990. *Distribution and taxonomy of birds of the World*. 1111 pp. Yale University Press, New Haven, Connecticut.
- Snow, D.W. & Perrins, C.M.** 1998. *The Birds of the Western Palearctic*. Concise Edition, vol. 1. 1008 pp. Oxford University Press, Oxford.
- Svensson, L., Grant, P.J., Mullarney, K. & Zetterstrom, D.** 1999. *Collins Bird Guide*. 399 pp. HarperCollins, London.
- Sundevall, C.J.** 1857. Om le vaillanter oiseaux d'Afrique. Kritisk framställning af fogelaterna uti alder ornithologiska arbeten. *Kongliga Svenska Vetenskaps-Akademiens Handlingar*, **2**(3): 16–60.
- Walker, L.E., Walker, J.M., Palca, J.W. & Berger, R.J.** 1983. A continuum of sleep and shallow torpor in fasting doves (*Streptopelia risoria*). *Science*, **221**: 194–195.
- Willughby, F.** 1678. *The ornithology of F. Willughby of Middleton*. 441 pp. Published by the author, London.
- Zenone, P.G., Sims, M.E. & Erickson, C.J.** 1979. Male ring dove (*Streptopelia risoria*) behavior and the defense of genetic paternity. *American Naturalist*, **114**: 615–626.

Acknowledgement of receipt of this application was published in BZN **63**: 86.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).